

REMARKS

Claims 1-33 were pending in the application. Claims 2, 10, 16, 18-25 and 30 have been cancelled. Claims 34-42 have been added. Claims 1, 3-6, 8, 9, 11, 12, 14, 15, 17, 26 and 31 have been amended. Claims 1, 3-9, 11-15, 17, 26-29, and 31-42 are currently pending in the application.

35 U.S.C. § 102 Rejection:

Claims 1-33 stood rejected in the final office action under 35 U.S.C. § 102(a) as being anticipated by Van Loo, U.S. Patent 6,260,174. With respect to the cancelled claims, Applicant believes this rejection now moot. With regard to the remaining ones of claims 1-33, Applicant respectfully traverses this rejection.

The cited reference does not teach or suggest all of the elements of the independent claims. The teachings of Van Loo were presented in the previous office action response.

Applicant's independent claim 1 recites, in pertinent part:

“a record of one or more previous requests from the first master device and at least one additional master device, wherein the record includes a storage configured to indicate which of the first master device and the at least one addition master device has had a previous request denied and a queue configured to indicate an order in which the first master device and the at least one additional master device were granted a request by the slave, wherein the slave device is configured to grant the first request if the storage and queue indicate that the first master is a least recently served master device of one or more master devices that has had a previous request denied by the slave device”
(Emphasis added).

Similarly, Applicant's independent claim 12 recites, in pertinent part:

“a retry pool comprising a plurality of positions configured to indicate which of the plurality of master devices have had a previous request denied by the slave device; and an acceptor circuit configured to grant the request based upon the queue and the retry pool, wherein the acceptor circuit is configured to grant a request to a requesting master device if the queue and the retry pool indicate that the requesting master device is a least recently served master device of one or more of the plurality of master devices that have had a previous request denied by the slave device” (Emphasis added).

Independent claim 26 recites a combination of features similar to those recited in claims 1 and 12.

Applicant can find no teaching or suggestion of this combination of features in Van Loo. In the office action, the Examiner contends that Van Loo teaches a retry pool comprising a plurality of positions adapted to indicate which of the plurality of master devices have had a previous request denied by the slave device, and cites Van Loo at column 6, lines 22-36, columns 8-9, and Fig. 2 (SCIQ, SCOQ). Applicant respectfully disagrees with the Examiner’s characterization, and can find no teaching or suggestion of a retry pool having a plurality of positions adapted to indicate which of the master devices had a previous request denied by the slave device (as recited in claim 12, and similarly recited in claim 1 presented above). The Examiner also contends that Van Loo teaches a queue adapted to indicate the order in which the slave device has granted at least one previous request (Col. 3, line 41 to col. 6, line 27, queue 160, 170 of Fig. 2, col. 5 lines 43-44, Van Loo). Applicant respectfully disagrees with this characterization as well, and can find no teaching or suggestion in these citations of a queue, a record, or any other type of storage mechanism configured to store any information regarding previous requests granted by the slave, much less an indication of the order in which at least one previous request has been granted.

In column 8, lines 12-21, Van Loo states:

“At any given time, the counters 230 and 240 store the number of pending transaction requests in the corresponding slave request queue, and the size of the pending store data in the slave store data queue. Unissued transaction requests may in some circumstances be stored for the slaves 140 and 150 in output queues 210 and 220, which may be arbitrarily large, and in particular may be larger than the SCIQ's 250 and 260. In other circumstances, requests remain enqueued in corresponding SCIQ's.” (Emphasis added).

In column 9, lines 2-5, Van Loo states:

“That is, in a particular system it may be required that a pending transaction in queue 210 from master 110 (intended for slave 140) be processed before a succeeding transaction from master 110 intended for slave 150 can be processed.” (Emphasis added).

In column 9, lines 7-12, Van Loo states:

“Aside from such an ordering requirement, or assuming the pending transactions in SCIQ's 250 and 260 are from different masters, then either of these queues 250 and 260 can release a request for either slave 140 and 150 via the SC output queues 210 and 220, thereby allowing an increase in throughput.”

In light of the above citations from Van Loo, it is clear that the SCIQ's and SCOQ's store information regarding pending transactions. Applicant's retry pool in claim 12 (and recited similarly in other ones of the independent claims) stores information regarding denied requests. Applicant's queue in claim 12 (also recited similarly in other ones of the independent claims) stores information regarding an order in which the slave device has granted at least one previous. Applicant submits a denied request is not a pending request. Accordingly, Applicant respectfully submits that the Examiner's characterization of SCIQ's and SCOQ's of Van Loo as a retry pool as recited in the independent claims is therefore incorrect. Furthermore, since queues 160 and 170 are

coupled to receive information from SCOQ's 210 and 220, respectively, Applicant submits that they also store information regarding pending transactions, and thus are not configured to store information indicating an order in which the slave device has granted at least one previous request.

Applicant further directs the Examiner's attention to column 2, lines 27-30 of Van Loo, which states:

“The elimination of (advance or overflow) feedback signals in the present flow control system reduces the interface latency, since there is no extra handshake, no rescheduling or rearbitrating for resources, and no retries by the master.”
(Emphasis added).

In light of this disclosure by Van Loo, as well as the previous disclosures presented above, Applicant submits that Van Loo does not teach or suggest a retry pool or a storage configured to indicate which of a first and at least one or more master devices have had a previous request denied. Since there are no retries by the master in the system of Van Loo, Applicant submits there would be no retry information to be stored (and no previously denied requests), and thus no retry pool.

For at least these reasons, Applicant submits that Van Loo does not teach or suggest all of the elements of the independent claims, and thus respectfully requests removal of the 35 U.S.C. § 102(a) rejection.

Patentability of the Added Claims:

The present amendment adds claims 34-42. Applicant submits that no new matter has been added, and that the claims are fully supported in the specification (e.g., Fig.'s 5 and 6 and their associated text in the specification). Applicant submits that newly added claims 34-42 are allowable for at least the same reasons as stated above regarding independent claims 1, 12, and 26 and their associated dependent claims.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-56600/BNK.

Respectfully submitted,

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